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REMEDIAL INVESTIGATION UPDATE

No. 0000010

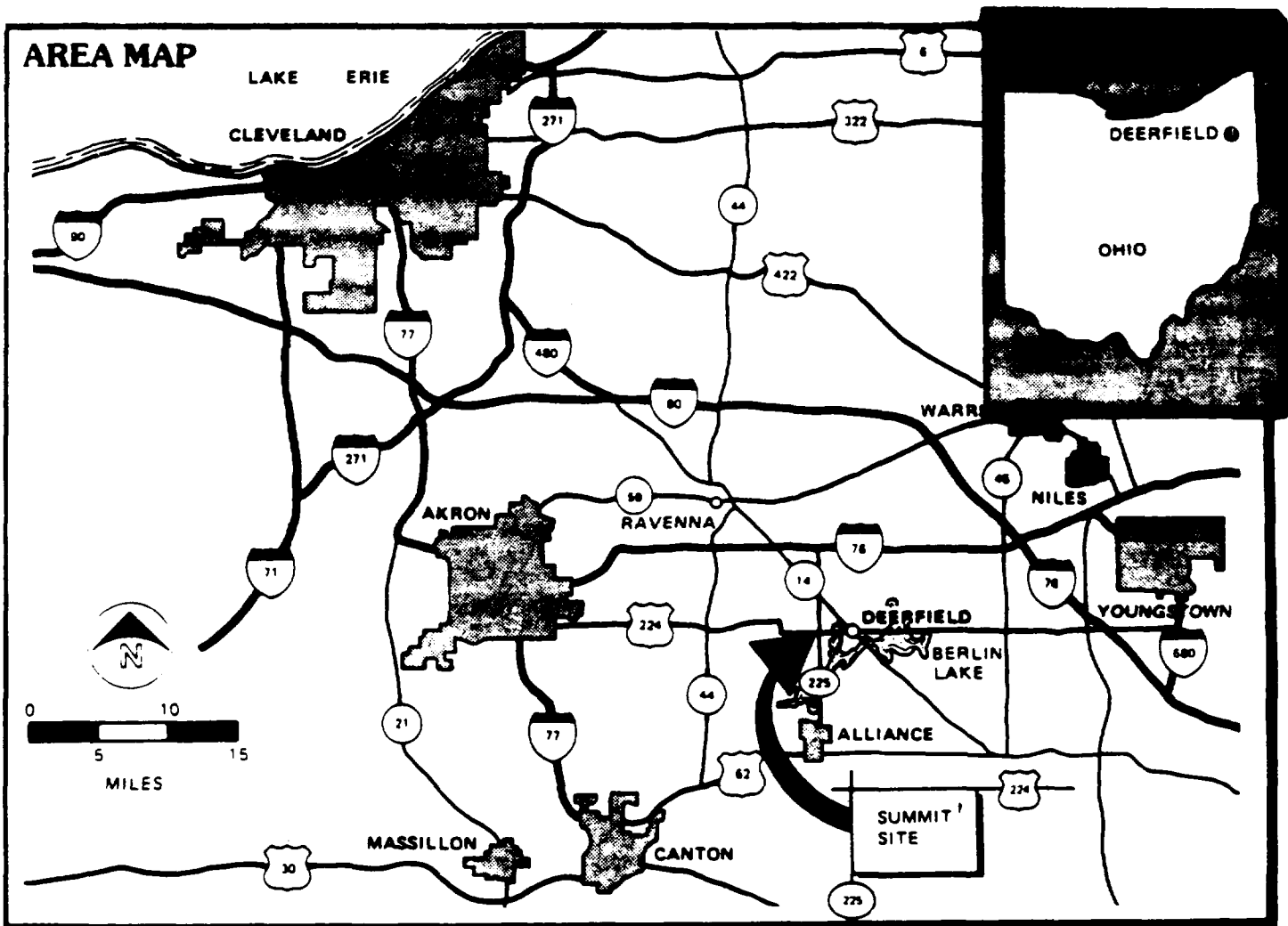
INTRODUCTION

The U.S. EPA is conducting field investigations at the Summit National Site to determine the extent of contamination from hazardous substances stored or disposed of there. The investigation has consisted of two phases of field sampling to define the seriousness of suspected soil, surface water, stream sediment, and groundwater contamination at the site. The

second phase of sampling was finished in September 1986 and the complete findings of the two-phase investigation will be presented in a Remedial Investigation (RI) report by early 1987. The purpose of this fact sheet is to report on the available information from the second sampling phase. An earlier fact sheet (July 1985) reported on the preliminary findings from Phase I.

BACKGROUND

The Summit site is a former solvent recycling and disposal facility located on an abandoned coal strip-mine at the intersection of Ohio Route 225 and U.S. Route 224 in Deerfield Township, Portage County, Ohio (area map). The site includes two ponds, an abandoned incinerator, and several vacant buildings. It is enclosed by a fence and surrounded by light in-



dustries, farmland and a few residences (site map).

Between 1973 and 1978, drummed and bulk liquid wastes from various manufacturing and chemical companies were brought to the site, where they were stored, incinerated, and allegedly buried and dumped. In 1975, the Ohio EPA responded to a complaint of unauthorized pollutant discharges on-site, and through sampling found high levels of toxic pollutants in surface water, sediment, and soil on and near the site. Further investigations in 1979 determined that hazardous chemicals were continuing to leak from the site into the environment. In 1980, U.S. EPA removed 7,500 gallons of hazardous waste from the site's surface. In 1981, an agreement between Ohio and potentially responsible parties resulted in a surface cleanup which removed drums, tanks, surface debris, and a small amount of contaminated soil from the site.

INVESTIGATION ACTIVITIES

After the surface cleanup was completed in 1982, U.S. EPA and Ohio EPA began to focus on residual contamination. The site had been added to the National Priorities List (NPL), and became eligible for monies under the federal "Superfund" program to make further investigations and to provide long-term cleanup solutions. (See the explanation on the last page of this fact sheet).

An investigation to define the extent and nature of contamination at the Summit National Site has consisted of two sampling phases. During Phase I, completed in the summer of 1985, U.S. EPA developed an overview of the extent and nature of contamination at the site. Soil, surface water, groundwater, and stream sediment were sampled. Samples were tested for base/neutral acids (BNA's), volatile organic compounds (VOC's), pesticides, and inorganic compounds. A geophysical survey was performed and areas of buried drums and tanks were identified.

Phase II sampling began in December of 1985. During this phase, test pits were dug in areas where buried drums were expected to estimate the volume of drums, take samples, and assess





the condition of buried items. More than 300 subsurface soil samples were taken and screened for organic contamination; 95 were analyzed for a full range of contaminants. During May and June 1986, more groundwater monitoring wells were installed. Additional soil samples were collected at nearby offsite locations to establish background conditions for certain compounds. These data will help to distinguish site contaminants from naturally occurring compounds in the area.

Phase II field investigations continued in July 1986 and were completed in October 1986. During this phase, a second round of sampling was performed at all monitoring wells, residential wells, and on-site and offsite surface water sampling locations. A second round of sediment samples was also collected.

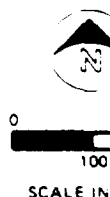
Phase II was delayed by a reduction of funds available in the Superfund program. The original funding authorization expired in October 1985, and Congress is currently working toward reauthorizing funding for the program. However, delays in authorization have resulted in reduced funds and a slowdown of work at some sites, including Summit National. To help keep work at Summit National moving ahead, the Ohio EPA has provided interim funding for project work.

SITE MAP

LEGEND

-  AREA OF HIGHEST SOIL CONTAMINATION
-  POTENTIAL DRUM BURIAL SITE
-  ABANDONED STRUCTURES
-  SEDIMENT & WATER QUALITY SAMPLING LOCATIONS

NOTE: All locations of structure and physical features approximate
SOURCE: Modified from US EPA



PRELIMINARY FINDINGS

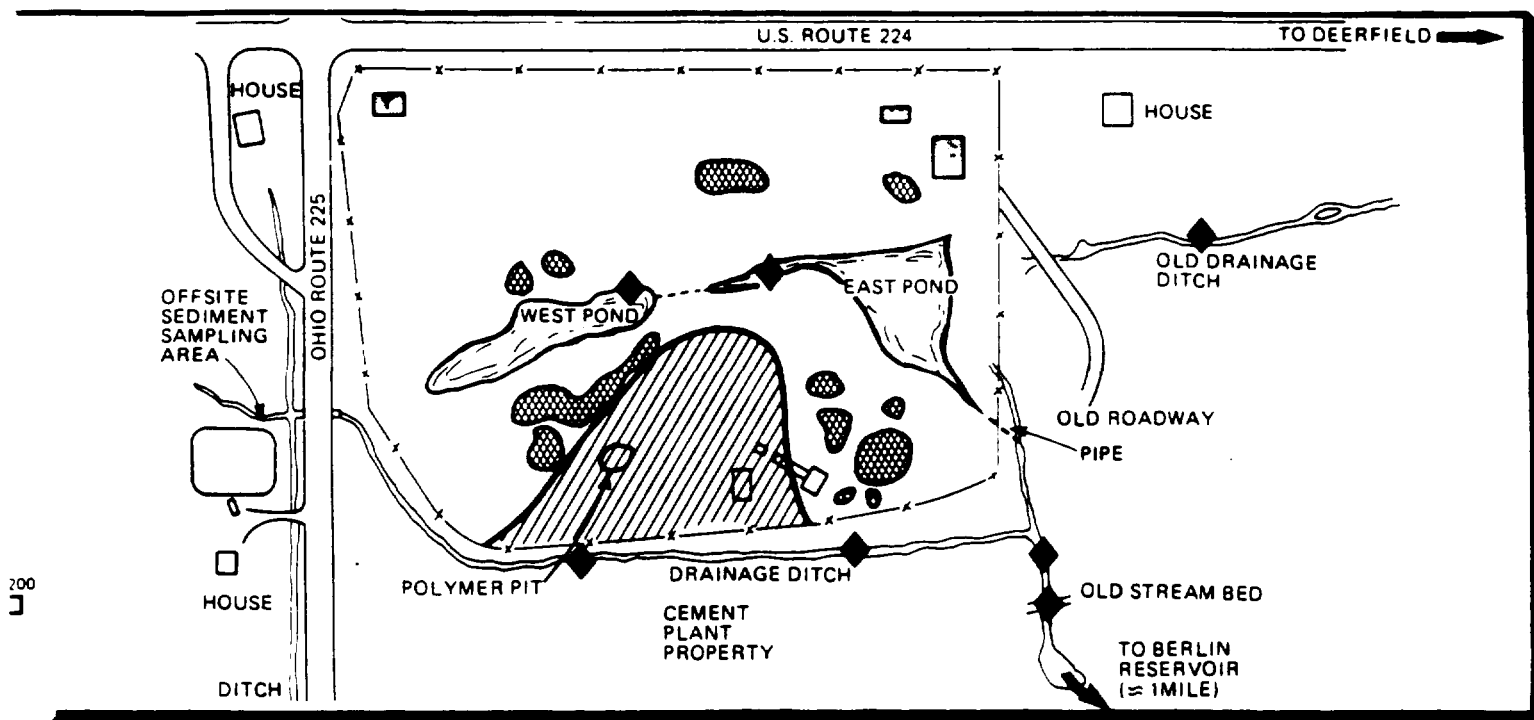
The findings obtained from the investigation are strictly preliminary in nature. The final analysis of the two sampling phases will be provided in the final Remedial Investigation (RI) report expected by spring 1987. The findings of the RI report will be summarized in another fact sheet at that time. Some of the preliminary findings are provided below.

• Soil

Surface soils on the site contain organic compounds, VOC's, PCB's, and fluorene. The highest levels of organic contamination have been found in the south half of the site. Data for subsurface and offsite soil samples have not been completely analyzed.

• Groundwater

The Summit National Site is underlain by at least two groundwater aquifers. Preliminary information indicated that groundwater in the shallow aquifer (which flows generally southeast) is contaminated with BNA's, VOC's, and inorganic compounds. Groundwater in the deeper aquifer (which flows generally southwest) is less contaminated, but contaminant migration from the shallow to the deep aquifer is a possibility. Results indicate higher concentrations of contaminants under the



south end of the site. Data from Phase II sampling are being analyzed to determine more precisely the extent and movement of groundwater contaminants.

To date, contamination has not been detected in any of the area's residential water supply wells. Some metals found in residential wells represent the typical hardness of water in the area.

- **Surface Water**

Contaminants were detected in both of the onsite surface water ponds (see site map). The results show greater contamination in the east pond than in the west pond. Surface water downstream of the site does not yet appear to have been affected. The surface water quality at the site and part way along the drainage route to the Berlin Reservoir (about 1 mile downstream) is also being analyzed.

- **Sediment**

The sediment sampling results show more sediment contamination in the west pond than in the east (this is the opposite of what was found in the surface water samples). BNA's were detected in sediment upstream of the site, possibly indicating that the stream backflows at times. The concentrations of BNA were actually higher offsite than on-site.

Sediment in the small impoundment downstream of the site contains VOC's and inorganic compounds. The highest concentrations of pesticides in the sediment were found in the drainage ditch at the southeast corner of the site.

- **Buried Tanks and Drums**

During Phase II investigations, test pits were dug at some locations where buried tanks and drums were expected (see site map). Preliminary estimates indicate between 1,000 and 2,000 buried drums on the site. Most of the drums are in good condition, and preliminary data from representative samples suggest that most do not contain pure products. Drums of pure products or single raw chemicals are considered more hazardous because of the high concentrations.

Underground tanks at the northwest corner of the site contain compounds commonly found in petroleum products. No immediate threat to public health or the environment was identified from the tanks.

FUTURE ACTIVITIES

U.S. EPA is preparing the RI report, which will describe in detail the investigation findings. Then, the Agency will prepare a Feasibility Study (FS), which will evaluate the various RI report alternatives for dealing with contamination at

the site. Each alternative will be evaluated on its effectiveness in protecting public health, welfare and the environment; technical feasibility; and cost. Based on the FS findings, U.S. EPA and Ohio EPA will recommend a remedial action to be implemented. The community will have an opportunity to review and comment on the proposed action before a final decision is made.

AVAILABLE INFORMATION

Anyone desiring additional information may consult various EPA documents that have been prepared for the Summit National Site. Copies of the applicable laws, the work plans, and preliminary sampling results are available for review at the U.S. Post Office in Deerfield.

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GLOSSARY

Aquifer — A particular zone or layer of rock or soil below the ground surface that is capable of producing usable quantities of groundwater to wells and springs.

Base Neutral/Acids (BNA's) — A group of organic compounds that are not volatile, i.e., they do not readily evaporate. BNA's tend to adhere to soil particles; they also move slowly through soils.

Fluorene — A derivative of coal tar and coke oven tars. It is a polycyclic aromatic hydrocarbon. It is not highly soluble in water but strongly adsorbs to soil and sediment. Little information is available on its toxicological effects.

Groundwater — Underground water that fills pores in soil or openings in rock to the point of saturation.

Inorganic Compounds — Compounds composed of mineral materials, including elemental salts and metals such as iron, cadmium, arsenic, and beryllium.

Organic Compounds — Compounds composed of carbon, including material such as solvents, oils, and pesticides that are not generally readily dissolved in water.

Polychlorinated Biphenyls (PCB's) — A family of organic compounds used since 1926 in such products as electric transformers, lubricants, adhesives, and caulking compounds. They are extremely persistent in the environment and are stored in the fatty tissues of humans and animals through the bioaccumulation process. U.S. EPA banned the use of PCB's in 1976. In general, PCB's are not as toxic in short-term doses as some

other chemicals, although chronic exposure can cause liver damage. They have also caused cancer in laboratory animals.

Remedial Investigation/Feasibility Study (RI/FS) — The RI/FS is a two-part study that is completed before cleanup can begin. The first part is the Remedial Investigation (RI), which studies the nature and extent of the problem. The second part is the Feasibility Study (FS), which evaluates different methods of dealing with the problem and recommends a preferred method that will effectively protect public health and the environment.

Sediment — Materials that settle to the bottom of a stream, creek, lake, or other body of water.

Volatile Organic Compounds (VOC's) — A group of organic compounds characterized by their tendency to evaporate.

MAILING LIST

Anyone wishing to be placed on the Summit National Site mailing list, please fill out, detach, and mail this form to:

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